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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,129	11/21/2001	Scott E. Trevino	GEMS8081.108	1210

27061 7590 09/20/2005

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EXAMINER	
LAY, MICHELLE K	
ART UNIT	**PAPER NUMBER**
2672	

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/683,129	TREVINO ET AL.	
	Examiner	Art Unit	
	Michelle K. Lay	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 November 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Response to Arguments

1. Applicant's arguments filed 02 June 2005 with respect to claim 1 has been fully considered and they are persuasive. Therefore, the rejection has been withdrawn. However, Applicant's amendment necessitated the new ground(s) of rejection is made in view of Banks et al. (US Patent No. 6,674,449 B1) in view of Pavey et al. (US Patent No. 5,530,907).

2. Applicant's arguments filed 02 June 2005 with respect to claims 10, 16, 25 have been fully considered and they are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Banks et al. (US Patent No. 6,674,449 B1).

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "322 " in the specification ([0087], line 5) and "328" have both been used to designate application parameters. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "263" in Fig. 9. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

5. Claim **31** is objected to because of the following informalities: Claim **31** is said to have dependency from claim 33, however claim 33 does not exist. It is assumed claim **31** is dependent on claim 30, and is thus rejected as such. Appropriate correction is required.

Claim Rejections - 35 USC § 102

Claims **10-32** are rejected under 35 U.S.C. 102(e) as being anticipated by Banks et al. (US Patent No. 6,674,449 B1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Banks et al. explicitly teaches a graphical user interface for prescribing medical imaging sessions [Figs. 3-10].

6. In regards to claims **10**, **26**, **27** –

As illustrated in Fig. 5, workflow navigation space (278) allows the technician to facilitate medical imaging workflow by providing a plurality of user selectable icons. When one of said icons representing steps of said medical imaging workflow is

selected, a digital tab (276) is provided (claim **10**: ***a plurality of prescription tabs aligned vertically on the GUI***). In addition, each tab comprises workflow icon sets (284, 286, 288, and 290). Each of the workflow icons includes a virtual button and an LED illustration (292) which when the icon is selected, lights up (claim **10**: ***a plurality of status indicators, wherein each indicator is configured to display a status of activities for a corresponding prescription tab***) [col. 13, lines 12-14]. Said LED illustration is a status indicator, which correlates with the prescription tabs.

As shown in Figs. 3-10, a domain space (218) is provides that includes three separate domain icons (220, 224, 226) (claim **27**: ***the number of context-specific tabs are arranged horizontally across a top region of the GUI***). Each of these domain icons is used to open an entirely different application of the interface system [col. 10, lines 18-29]. As shown in Fig. 3, when schedule icon (222) is selected, a "digital tab" (230) encompasses the schedule icon (222) within dynamic space (220) to distinguish selected icon (222) from the non-selected icons (224, 226) (claims **10**, **26**: ***a plurality of context-specific tabs aligned horizontally on the GUI***) [col. 10, lines 46-54].

Although the system of Banks et al. is a universal interface apparatus for use with any of several different imaging systems, sub-processes which are common to each process in a specific modality are identified [col. 8, line 59-60]. The modality guidance tools consist of a set of tables stored in computer memory that are used to automatically determine required settings and images and for indicated suitable patient position when a specific radiologist orders an exam of a specific type. After determining required images, positions and parameters using the guidance tools, icons are provided

via the universal interface to guide the technologist through a properly orchestrated imaging protocol [col. 9 lines 7-14]. Thus the ***GUI is specific to only one medical imaging modality*** (claim **10**).

7. In regards to claims **11**, **12**, **30**, **31** –

The workspace (254) as shown in Fig. 5 is specifically a messaging region, where it conveys information to the technician. The applicant recites the alternate language, "at least one of", which only requires one of the listed elements within the claim. The display of image (280) signifies the completion of the scan session, which specifically is displaying said scan status and the state of the current application (claims **11**, **30**, **31**). Furthermore, as can be seen in Fig. 5, the messaging region is located in the bottom part of the GUI, below the plurality of context specific tabs (218, 222, 224, 226), where are along the top of the region of the GUI and the plurality of prescription tabs (256, 258, 260, 262, 264, 252) are disposed generally along a left side of the GUI (claim **12**).

8. In regards to claim **13** –

Figs. 3-10 explicitly teach individually corresponding windows that are displayed when an icon (digital tab) is selected, and each window comprises a number of scan parameters. For example, on FIG. 5, workspace (254) displays patient position (310), technique (300), range (302), scan time (304), and processing (306).

9. In regards to claim **14** –

Selecting a specific icon reveals a corresponding window comprising a set of parameters, wherein the most commonly modified parameter set and associated tools are displayed. In addition, another window can be opened to display a larger set of parameters, which are only seldom used. Thus, displaying the most commonly modified parameters specifically is displaying the most important parameters. Those not as important (seldom used) are only displayed upon further user request [Figs 5-10; col. 12, line 65 – col. 14, line 55].

10. In regards to claim **15** –

Banks et al. explicitly teaches the tool of claim 10 having a visual appearance consistent across multiple imaging applications. Figs. 5-10 shows a plurality of imaging applications, wherein the visual appearance is explicitly consistent.

11. In regards to claim **16** –

Fig. 1 shows the major component of a preferring MR system that incorporates the invention of Banks et al. As shown, the gradient coil assembly (139) forms part of a magnet assembly (141) which includes a polarizing magnet (140) that produces a polarizing field that extends horizontally through a bore (142) Located within the bore (142) is a circular cylindrical whole-body RF coil (152) (claim **16**: ***a magnetic resonance imaging system having a plurality of gradient coils positioned about a bore of a magnet to impress a polarizing magnetic field***). This coil (152) produces a

circularly polarized RF field in response to RF pulses provided by a transceiver module (150) in the system control cabinet (122). These pulses are amplified by an RF amplifier (11) and coupled to the RF coil (152) by a transmit/receive switch (154) which forms an integral part of the RF coil assembly (claim **16**: ***and an RF transceiver system and an RF switch controlled by a pulse module to transmit RF signals to an RF coil assembly to acquire MR images***) [col. 8, lines 7-21].

The data processor of the system of Banks et al. is a programmed data processor (claim **16**: ***a computer programmed***) [col. 5, lines 60-61]. The operation of the system is controlled from a universal interface (100) that includes an interface processor (101) that scans a keyboard (102) and receives inputs from a human operator through a display screen (104). Screen (104) may be either a plasma/touch screen or a more conventional display that a pointer cursor is provided which can be moved via mouse (103) (claim **16(D)**: ***display a GUI on a console***). Through the keyboard (102) and mouse (103), a technologist controls the production and display of images by a processor (106) in the computer system (107) (claim **16(A)**: ***receiving a launch MR application command***; claim **16(B)**: ***launching an MR application***), which connects to display (104) through a video cable (105) and processor (101) [col. 7, lines 1-20].

Referring to Fig. 3, when a technologist selects Mike Jones on interface (228), processor (106) accesses memory (113) and retrieves the radiology request form that is stored at the address corresponding to the exam for Mike Jones. After ensuring proper authorization, the technologist selects acquire icon (258). When selected, the processor (106) identifies the radiologist indicated on the request form (255) and the

required protocol from the request form (255) and uses those two pieces of information to access a specific set of required images and parameters in table (200) that is stored in memory (113) (claim **16(C)**: ***receive a number of application step identifiers***). As shown in Fig. 5, for these required images, processor (106) provides separate icons (284, 286, 288, 290) within space (278) where these icons are collectively referred to as a workflow icon set (***application step identifiers***) [col. 12 line 25 – col. 13, line 12]. Although the interface of Banks et al. is a universal interface apparatus for use with any of several different imaging systems, sub-processes which are common to each process in a specific modality are identified [col. 8, line 59-60]. The modality guidance tools consist of a set of tables stored in computer memory [Fig. 2] that are used to automatically determine required settings and images and for indicated suitable patient position when a specific radiologist orders an exam of a specific type. After determining required images, positions and parameters using the guidance tools, icons are provided via the universal interface to guide the technologist through a properly orchestrated imaging protocol [col. 9 lines 7-14]. Thus, the number of prescription steps corresponds to the icons that are associated with the required images. These icons are based on the type of radiology request, therefore, the number of workflow icons are customized to the type of test requested by the technologist (claim **16(D)**: ***the GUI having a number of tabs equal to the number of identified application steps***).

As illustrated in Fig. 5, localizer icon 284 is first listed and therefore generally first selected to generate a "localizer" image in image window (280) which can be used to determine general patient and anatomical body position with respect to system

hardware (claim **16(E)**: ***initiate a localizer scan for at least one localizer***). The LED (284) provides a status of the localizer scan (claim **16(E)**: ***display a status of the localizer scan on the GUI***) [col. 13, lines 20-25]

Figs. 5-10 explicitly teaches a plurality of icons representing a plurality of application steps (256, 258, 260, 262, 284, 286, 288, and 290), wherein said selection of each application step selector must send a command to the CPU for acquiring an MR image. For example, selecting (284), (286), (288), and (290) results in acquisition of an MR image (claim **16(F)**: ***receive a prescription command and acquire MR images in response to the received prescription commands for an application step***) [col. 12, line 65 – col. 14, line 33]. Furthermore, for each imaging prescription command (e.g. LOCALIZER (284)), there are pluralities of prescription application steps involved, which can be listed and modified in the PROTOCOLS selector module (352) shown in Fig. 8 (claim **16(G)**: ***receive another prescription command and acquire MR images in response to the received another prescription command for another application step***).

12. In regards to claim **17** –

The same basis and rationale is applied for claim rejection as applied to claim 16 above. As long as the technician continues to select another image acquisition selector, step (G) will be repeated.

13. In regards to claim **18** –

Banks et al. explicitly teaches the ***MRI apparatus of claim 16 wherein the computer is further programmed to display, on the GUI, the acquired MR images*** [Fig. 5 (280); Fig. 6 (320)]. The data processor of the system of Banks et al. is a programmed data processor (***a computer programmed***) [col. 5, lines 60-61]. The operation of the system is controlled from a universal interface (100) that includes an interface processor (101) that scans a keyboard (102) and receives inputs from a human operator through a display screen (104). Screen (104) may be either a plasma/touch screen or a more conventional display, which a pointer cursor is provided, which can be moved via mouse (103) (***GUI***) [col. 7, lines 1-20].

14. In regards to claim **19** –

Banks et al. explicitly teaches the ***MR apparatus of claim 16 wherein the computer is further programmed to receive a re-prescription command for an application step and reacquire previously acquired MR images for the application step*** [col. 13, line 26 – col. 14, line 32]. The technician can acquire a series of images by changing the parameters, which specifically is reacquiring previously acquired MR images. Thus, multiple imaging commands specifically are sending and receiving re-prescription commands.

15. In regards to claim **20** –

Banks et al. explicitly teaches ***the MR apparatus of claim 16 wherein the computer is further programmed to display a series of prescription windows on the GUI*** [Figs. 5-10; col. 13, line 26 – col. 14, line 32] as applied to claim 19 above. For each imaging prescription, a window is displayed on the GUI, which specifically is displaying a series of prescription windows on the GUI.

16. In regards to claim **21** –

Banks et al. explicitly teaches ***the MR apparatus of claim 16 wherein the computer is further programmed to reposition an MR image on the GUI in response to an image reposition user inpu***t [col. 15, lines 39-59]. Displaying different positions of the 3D model specifically is repositioning the MR image on the GUI.

17. In regards to claim **22** –

Banks et al. explicitly teaches ***the MR apparatus of claim 16 wherein the computer is further programmed to continually display a scan status on the GUI, wherein the scan status includes one of stand-by, in-progress, and completed***. As illustrated in Fig. 5, workflow navigation space (278) allows the technician to facilitate medical imaging workflow by providing a plurality of user selectable icons. When one of said icons representing steps of said medical imaging workflow is selected, a digital tab (276) is provided. In addition, each tab comprises workflow icon sets (284, 286, 288,

and 290). Each of the workflow icons includes a virtual button and an LED illustration (292) which when the icon is selected, lights up (***status indicators***) [col. 13, lines 12-14]. Said LED illustration is a status indicator, which correlates with the prescription tabs. When an icon is chosen, the LED is lit which corresponds to an "in-progress" status. Furthermore, Fig. 3 explicitly teaches a "complete status" (242) for each exam, which specifically is a status indicator to indicate a completion of task (claim **25**: ***wherein the scan status includes one of stand-by, in-progress, and completed***). Claim **22** recites the alternate language, "one of', and thus Banks et al. explicitly teaches said limitations.

18. In regards to claim **23** –

As shown in Figs. 3-10, a domain space (218) is provides that includes three separate domain icons (220, 224, 226) (claim **23**: ***the GUI including a number of context-specific selectors positioned horizontally along a top region thereof***). Each of these domain icons is used to open an entirely different application of the interface system [col. 10, lines 18-29]. As shown in Fig. 3, when schedule icon (222) is selected, a "digital tab" (230) encompasses the schedule icon (222) within dynamic space (220) to distinguish selected icon (222) from the non-selected icons (224, 226) [col. 10, lines 46-54]. Furthermore, as illustrated in Fig. 5, workflow navigation space (278) allows the technician to facilitate medical imaging workflow by providing a plurality of user selectable icons. When one of said icons representing steps of said medical

imaging workflow is selected, a digital tab (276) is provided (claim **23**: ***wherein the number of tabs are positioned vertically on the GUI***).

19. In regards to claim **24** –

Banks et al. explicitly teaches ***the MR apparatus of claim 16 wherein the computer is further programmed to display a summary module on the GUI, the summary module enabling review of prescription commands for acquiring medical imaging data*** [Figs. 8-10]. Said PROTOCOLS selector allows the user to see a list of prescription commands for review and modification, which specifically is a summary module.

20. In regards to claim **25** –

Fig. 1 shows the major components of a preferring MR system that incorporates the invention of Banks et al. The operation of the system is controlled from a universal interface (100) that includes an interface processor (101) that scans a keyboard (102) and receives inputs from a human operator through a display screen (104). Screen (104) may be either a plasma/touch screen or a more conventional display, which a pointer cursor is provided, which can be moved via mouse (103) (claim **25**: ***GUI***). Through the keyboard (102) and mouse (103), a technologist controls the production and display of images by a processor (106) in the computer system (107) (claim **25**: ***receiving a launch application instruction***; ***launching the application***), which

connects to display (104) through a video cable (105) and processor (101) [col. 7, lines 1-20].

Although the interface of Banks et al. is a universal interface apparatus for use with any of several different imaging systems, sub-processes which are common to each process in a specific modality are identified [col. 8, line 59-60]. The modality guidance tools consist of a set of tables stored in computer memory [Fig. 2] that are used to automatically determine required settings and images and for indicated suitable patient position when a specific radiologist orders an exam of a specific type. After determining required images, positions and parameters using the guidance tools, icons are provided via the universal interface to guide the technologist through a properly orchestrated imaging protocol (claim **25**: ***displaying a GUI for prescribing an imaging session***) [col. 9 lines 7-14].

Referring to Fig. 3, when a technologist selects Mike Jones on interface (228) (claim **25**: ***based on a received user input***), processor (106) accesses memory (113) and retrieves the radiology request form that is stored at the address corresponding to the exam for Mike Jones. After ensuring proper authorization, the technologist selects acquire icon (258). When selected, the processor (106) identifies the radiologist indicated on the request form (255) and the required protocol from the request form (255) and uses those two pieces of information to access a specific set of required images and parameters in table (200) that is stored in memory (113). As shown in Fig. 5, for these required images, processor (106) provides separate icons (284, 286, 288, 290) within space (278) where these icons (***said modularizing tabs***) are collectively

referred to as a workflow icon set (claim **25**: ***the GUI having a number of vertically aligned modularizing tabs corresponding to the number of prescription steps***) [col. 12 line 25 – col. 13, line 12]. Thus, the number of prescription steps corresponds to the icons that are associated with the required images. These icons are based on the type of radiology request, therefore, the number of workflow icons are customized to the type of test requested by the technologist (claim **25**: ***determining a number of prescription steps based on a received user input***).

21. In regards to claim **28** –

Each procedure includes procedure specific sub-processes and the workspace includes a workflow navigation space in which, when a function icon is selected, the processor displays a workflow icon set including a separate workflow icon corresponding to each sub-process of the process associated with the selected function icon and for the specific modality [col. 6, lines 15-23]. Thusly, the number of workflow icons is related to the specific function chosen.

22. In regards to claim **29** –

As shown in Fig. 5, the workflow icons (284, 286, 288, 290) are arranged vertically within the workflow navigation space (278).

23. In regards to claim **32** –

As illustrated in Fig. 5, workflow navigation space (278) allows the technician to facilitate medical imaging workflow by providing a plurality of user selectable icons. When one of said icons representing steps of said medical imaging workflow is selected, a digital tab (276) is provided. In addition, each tab comprises workflow icon sets (284, 286, 288, and 290). Each of the workflow icons includes a virtual button and an LED illustration (292) which when the icon is selected, lights up (claim **25**: ***a plurality of status indicators***) [col. 13, lines 12-14]. Said LED illustration is a status indicator, which correlates with the prescription tabs. When the LOCALIZER (284) imaging session is finished, the corresponding image is displayed (280), which signals the completion of said imaging session. It would also make sense to turn off the LED (292) when said imaging session is completed. Since LEDS are not designed to stay on indefinitely, completion of said imaging session must turn off the LED. In addition, Fig. 3 explicitly teaches a "complete status" for each exam, which specifically is a status indicator to indicate a completion of task (claim **25**: ***the number of status indicators configured to indicate completion of a prescription step***).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims **1-9**, are rejected under 35 U.S.C. 103(a) as being obvious over Banks et al. (US Patent No. 6,674,449 B1) in view of Pavey et al. (US Patent No. 5,530,907).

Banks et al. teaches the limitations of claim **1-9** with the exception of teaching a dedicated messaging module. However, Pavey et al. teaches a scanner workstation that provides feedback to the operator.

24. In regards to claim **1** –

Banks et al. teaches an interface usable with medical imaging. As illustrated in Fig. 5, workflow navigation space (278) allows the technician to facilitate medical imaging workflow by providing a plurality of user selectable icons. When one of said icons representing steps of said medical imaging workflow is selected, a digital tab (276) is provided (claim **1**: ***a plurality of modularizing selectors configured to facilitate workflow through an imaging application***). In addition, each tab comprises workflow icon sets (284, 286, 288, and 290). Each of the workflow icons includes a virtual button and an LED illustration (292) which when the icon is selected, lights up (claim **1**: ***a plurality of status indicators, each status indicator correlating with a modularizing selector and configured to display at least one of selection of the modularizing selector and completion of tasks associated with the modularizing selector***) [col. 13, lines 12-14]. Said LED illustration correlates with a status indicator, which correlates with a modularizing selector. Thus, indicating a selection. Since the applicant recites the alternate language, "at least one of" in regards to displaying a section or completion, Banks et al. satisfies the limitation of selection with the LED.

Pavey et al. illustrates a scanner workstation (18) in Fig. 1. To provide a useful feedback to the operator of the scanner workstation (18), the scanner workstation (18) displays the status of the scanner workstation (18) on its monitor as well as display an image fragment of the document as it is being scanned, to provide visual feedback to the operator of a successful scanning operation. In addition, diagnostic messages for common scanner problems would be available on the display of the scanner workstation (18) (claim **1**: ***a dedicated messaging module configured to be persistently displayed across variations in the plurality modularizing selectors and the plurality of status indicators and to automatically display messages regarding the imaging application***) [col. 8, lines 19-28].

Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the visual feedback to the operator of Pavey et al. with the imaging system of Banks et al. because this would provide a useful feedback to the operator of the imaging system of Banks et al. By incorporating the display workstation features of Pavey et al., the display of Banks et al would display the status of the imaging system on its monitor to provide visual feedback to the operator of a successful scanning operation. In addition, diagnostic messages for common scanner problems would be available on the display of the scanner workstation [Pavey et al.: col. 8, lines 19-28].

25. In regards to claim **2** –

Banks et al. explicitly teaches ***the GUI of claim 1 further comprising at least two application regions and wherein the plurality of modularizing selectors are***

aligned vertically in a single application region (Figs. 3-10). Banks et al. explicitly teaches a plurality of application regions (218, 252, 278, 282, 254, and 280). In addition, said plurality of modularizing selectors (icons and digital tabs) is explicitly aligned vertically in a single application region (256, 258, 276, 260, 262, 264, and 290).

26. In regards to claim **3** –

Banks et al. explicitly teaches ***the GUI of claim 2 further comprising a plurality of windows corresponding in number to the plurality of modularizing selectors, the plurality of windows configured to present a number of scan parameters***. Figs. 3-10 explicitly teach individually corresponding windows that are displayed when an icon (digital tab) is selected (one window for each modularizing selector), and each window comprises a number of scan parameters. For example, in FIG. 5, workspace (254) displays patient position (310), technique (300), range (302),- scan time (304), processing (306).

27. In regards to claim **4** –

Banks et al. explicitly teaches ***the GUI of claim 1 further comprising at least one of a scan status indicator and a list of components necessary to initiate scan activity***. Fig. 5 clearly shows a scan status when the ACQUIRE modularizing selector is selected (the LED (292) lights up to show scan status). In addition, a list of parameters required to initiate said scan are displayed as applied to claim 3 above. Further, the applicant recites the alternate language, "at least one of", which only

requires one of the listed limitations. Thus the scan status (292) is sufficient to satisfy the limitation.

28. In regards to claim **5** –

Banks et al. explicitly teaches a messaging module as applied to claim 1 above. In addition, the workspace (254) as shown in Fig. 5 is specifically a messaging region. As applied above in claims 1 and 4, the applicant recites the alternate language, "at least one of", which only requires one of the listed elements. Since in FIG. 5, the list of imaging parameters(300, 302, 304, 306, 228) is listed on workspace (254), said limitation is satisfied. In addition, as applied to claim 1 above, the display of image (280) signifies the completion of the scan session, which specifically is displaying said scan status. Further, said workspace (254) specifically is positioned in the lower portion of the GUI.

29. In regards to claim **6** –

Banks et al. explicitly teaches ***the GUI of claim 1 wherein the messaging module includes a pop-up dialog configured to display an invalidity of a user input***. As applied to claim 1 above, Banks et al. teaches password security feature [col. 17, lines 1-14], which specifically is a dialog window configured to display an invalidity of a user input (in case of incorrect password).

30. In regards to claim **7** –

As shown in Figs. 3-10, a domain space (218) is provides that includes three separate domain icons (220, 224, 226) (claim **7**: ***the plurality of application-specific selectors are horizontally oriented***). Each of these domain icons is used to open an entirely different application of the interface system [col. 10, lines 18-29]. As shown in Fig. 3, when schedule icon (222) is selected, a "digital tab" (230) encompasses the schedule icon (222) within dynamic space (220) to distinguish selected icon (222) from the non-selected icons (224, 226) (claims **7**: ***a plurality of application-specific selectors that upon user selection each application-specific selection is configured to display a window specific to the imaging application***) [col. 10, lines 46-54].

Although the system of Banks et al. is a universal interface apparatus for use with any of several different imaging systems, sub-processes which are common to each process in a specific modality are identified [col. 8, line 59-60]. The modality guidance tools consist of a set of tables stored in computer memory that are used to automatically determine required settings and images and for indicated suitable patient position when a specific radiologist orders an exam of a specific type. After determining required images, positions and parameters using the guidance tools, icons are provided via the universal interface to guide the technologist through a properly orchestrated imaging protocol [col. 9 lines 7-14].

31. In regards to claim **8** –

Banks et al. explicitly teaches ***the GUI of claim 7 wherein the plurality of application-specific selectors include a landmark selector*** [Fig. 5, LOCALIZER (284)], ***a patient information selector*** [Fig. 4, PATIENT INFO (266, 256, 255, 254)], ***an advanced settings selector*** (Figs. 8-10, PROTOCOLS (352, 354)], and ***a help selector*** [col. 9, line 15 – col. 10, line 17; Fig. 9], ***and wherein each of application-specific selector is configured to launch a application specific window upon user selection, wherein the application specific windows include a landmark window configured to aid user positioning of scan subject, a patient information window configured to display patient information, an advanced settings and parameters window configured to display advanced settings and parameters for the imaging application, and a help configured to display assistance information related to the imaging application.***

As applied to claim 7 above, selection of each modularizing selector launches corresponding application specific window. In addition, said LOCALIZER (284) image (280) of Fig. 5 specifically is a landmark window configured to aid user positioning of scan subject (patient), which allows for proper positioning of said subject for the imaging session. Also, said PATIENT INFO (266, 256, 255, and 254) shown in Fig. 4, explicitly displays patient information. Said PROTOCOLS (352, 354) selector shown in Fig. 8 allows the user to see and modify specific parameters for specific imaging sessions, which specifically is advanced settings. Further, the two tables [Fig. 2] explicitly are designed to guide a technologist though an imaging process [col. 9, line 15 – col. 10,

line 17; FIG. 9], which specifically is assistance information related to the imaging application.

32. In regards to claim **9** –

Banks et al. explicitly teaches ***the GUI of claim 1 having a layout configured to facilitate left-to-right and top-to-bottom MR prescription workflow to guide a user logically through a managed prescription***. Figs. 3-10 explicitly teaches left-to-right and top-to-bottom layout for workflow. In addition, Banks et al. explicitly teaches MR [col. 1, line 14 – col. 2, line 54.; col. 3, lines 3-20.; col. 4, line 6 – col. 5, line 32].

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle K. Lay whose telephone number is (571) 272-7661. The examiner can normally be reached on Monday - Friday, 7:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (571) 272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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09.06.2005 mkl

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